AMENDMENTS TO THE CLAIMS

1. (cancelled)

2. (cancelled)

3. (Previously Presented) A cross-linked composite according to Claim 25, wherein the functionality is a mixture of such functionalities having a different functionality.

4. (cancelled)

5. (cancelled)

6. (Previously Presented) A method according to Claim 21, wherein the functionality is a mixture of such functionalities having a different functionality.

7. (Currently amended) A multi-layer material comprising a plurality of layers of a cross-linked composite as defined in Claim 25, having a functionality selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, wherein each layer has a different functionality.

8. (cancelled)

9. (Previously presented) A multi-layer material according to Claim 7 , having two functional layers, one functional layer having a hole transporting functionality, and the other functional layer having a light emitting functionality and an electron transporting functionality.

10. (Previously presented) A multi-layer material according to Claim 9, wherein the layer having the hole transporting functionality comprises CzBA, and wherein the layer having the light emitting functionality and an electron transporting functionality is F_nBA, wherein n= 2, 3 or 4.

11. (Currently amended) A method of making a multi-layer material comprising a plurality of layers of a cross-linked composite as defined in Claim 25, having a functionality selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, the method comprising forming on a substrate, a layer of a the composite ~~as defined in Claim 25, having a functionality selected from hole transporting, electron transporting and light emitting,~~ and cross-linking, and forming at least one another such layer having a different functionality ~~such as~~ selected from hole transporting, electron transporting, ~~and~~ light emitting, and a mixture thereof, and cross-linking.

12. (cancelled)

13. (cancelled)

14. (Previously presented) A method according to Claim 11, wherein said layer is formed on the substrate by spin coating from solution in an organic solvent and cross-linked, and successively forming and cross-linking said at least one another such layer.

15. (Previously presented) A method according to Claim 14, wherein the organic solvent is selected from the group consisting of THF, DMF and acetone.

16. (Currently amended) A multi-layer photoelectronic device, comprising in sequence, a transparent substrate layer, a transparent electrode layer, a

layer of a transparent cross-linked composite as defined in Claim 25, having a functionality ~~such as~~ selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, at least one another such cross-linked composite ~~as defined in Claim 25~~ layer having a different functionality ~~such as~~ selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, and another electrode layer.

17. (cancelled)

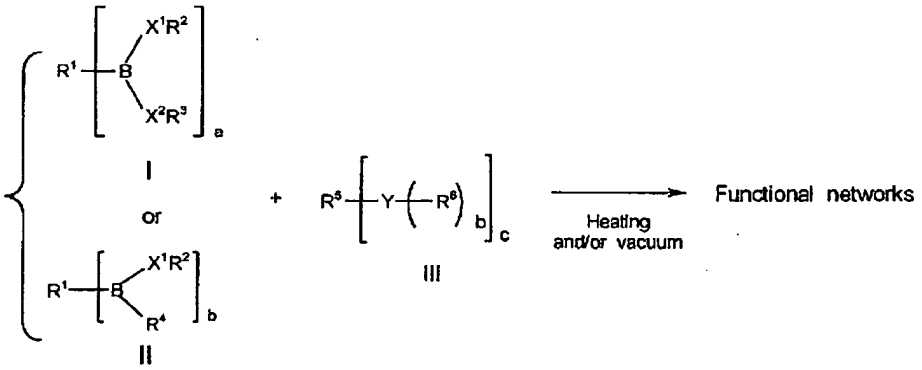
18. (Previously Presented) A multi-layer photoelectronic device according to Claim 16, having two functional layers, one functional layer having a hole transporting functionality, and the other functional layer having a light emitting functionality and an electron transporting functionality.

19. (Previously Presented) A multi-layer photoelectronic device according to Claim 18, wherein the layer having the hole transporting functionality comprises CzBA, and wherein the layer having the light emitting functionality and an electron transporting functionality is F_nBA, wherein n= 2, 3 or 4.

20. (Previously Presented) A multi-layer photoelectronic device according to Claim 19, wherein the transparent substrate is glass, the transparent electrode is indium tin oxide and the another electrode layer is Mg:Ag.

21. (Currently amended) A method of making a cross-linked composite of a boronic acid of structural formula I or II (when R^2 and R^3 = H) or a boronate of structural formula I or II (when R^2 and R^3 = alkyl or aryl) having a functionalilty selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, and a di- or ~~polyols~~ polyol or ~~thiols~~ thiol of structural formula III, comprising reacting a compound of structural formula I or structural formula

II with a compound of structural formula III, and cross-linking according to the following reaction



wherein,

R^1, R^4 and R^5 are alkyl or aryl, at least one of them containing a functionality;

R^2 and R^3 are alkyl or aryl, R^6 is H,

X^1 and X^2 are O,

Y = O or S, and

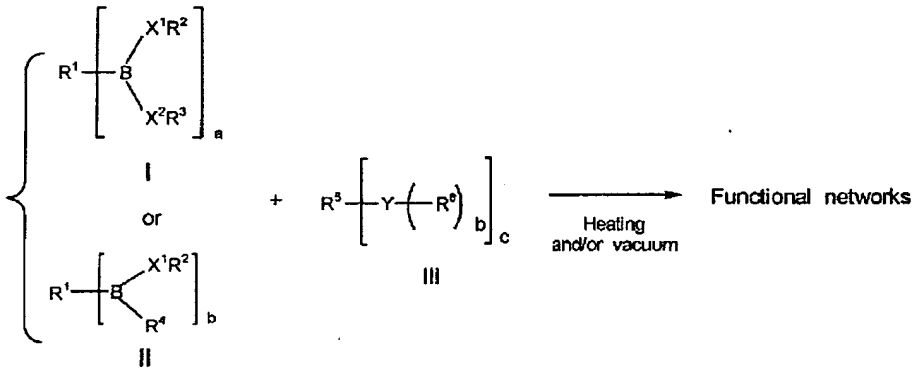
a, b, and c are equal to or larger than one, but at least ~~either a (or b) or~~ e <u>one of a, b and c</u> is larger than one.

22. (Previously Presented) A method according to Claim 21, wherein the cross-linking is effected by heating under vacuum.

23. (Previously Presented) A method according to Claim 22, wherein heating is effected at a temperature of from room temperature up to 130 ^{0}C.

24. (Previously presented) A cross-linked functional network, made by a method as claimed in Claim 22.

25. (Currently Amended) A cross-linked composite of a boronic acid of structural formula I or a boronate of structural formula II having a functionality selected from hole transporting, electron transporting, ~~and~~ light emitting and a mixture thereof, and a di-or polyol or thiol of structural formula III,



wherein R^1, R^4 and R^5 are alkyl or aryl, at least one containing a functionality,
$R^2$and R^3 are H, alkyl or aryl,
R^6 is H,
X^1 and X^2 are O,
Y is O or S, and
a, b and c are equal to or larger than one, but at least ~~either a (or b), or c~~ one of a, b and c is larger than one.